

### REMARKS

Claims 1, 3 - 5, 7 - 10, and 13 - 14 have been amended. Claims 6 and 11 - 12 have been cancelled from the application without prejudice. No new matter has been introduced with these amendments, all of which are supported in the specification as originally filed. Claims 1 - 5, 7 - 10, and 13 - 14 remain in the application.

#### I. Objection to the Claims

Page 2 of the Office Action dated October 6, 2005 (hereinafter, "the Office Action") states that Claim 13 is objected to because it is self-referencing. Correction of a typographical error has been made herein, and the Examiner is therefore respectfully requested to withdraw the objection.

#### II. Rejection under 35 U. S. C. §102(b)

Paragraph 2 on Page 6 of the Office Action states that Claims 1 - 5, 7, 9, and 10 are rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent 6,098,064 to Pirolli et al. This rejection is respectfully traversed.

Applicants have amended their independent Claims 1, 9, and 10 to specify limitations from now-cancelled Claims 6 and 11. As amended, these claims now explicitly specify that the values for the characteristics of the application program component, and of the operating environment, are specified as numeric values in vectors, and that the policy is specified as numeric values in a matrix. These claims further specify that the vectors and matrix are

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programmatically combined using matrix multiplication.

Pirolli's teachings pertain to documents to be cached at a client or a proxy server, such that a client can more quickly retrieve the content. See, for example, col. 1, lines 10 - 11; col. 2, lines 55 - 56; and col. 5, lines 1 - 32 and 57 - 59. Applicants' claimed invention is not directed to prefetching documents, but instead to determining whether application program components are suited for deployment at the edge of a network.

Applicants' independent claims specify "using matrix multiplication ..." (Claim 1, line 18, emphasis added). As is well known, matrix multiplication involves multiplying numbers, and summing the resulting products, in a particular way. (See, for example, "Matrix multiplication: an interactive micro-course for beginners", found on the Internet at [www.mai.liu.se/~halun/matrix/matrix.html](http://www.mai.liu.se/~halun/matrix/matrix.html).) Pirolli teaches vectors of "keywords" and "links". See the discussion of elements 516 and 518 of Fig. 5 at col. 7, lines 10 - 16. The keyword vector 516 "is filled with words", and the link vector 518 "is filled with the URL of documents ...". As will be obvious, keywords cannot be multiplied. Links or URLs also cannot be multiplied. Pirolli also teaches a vector of "times referenced (i.e., how recently used)" in Fig. 5 at 512. This vector comprises time of day entries; see col. 7, lines 1 - 2, "the current time at which the document is referenced is added to an entry in the vector 512". Time of day values cannot be used in multiplication.

Furthermore, in Pirolli, the vectors are of individually varying sizes. For example, the

keyword vector 516 contains "words from the document that best represent the content of the document" (col. 7, lines 11 - 13), and it will be obvious that one document might have more representative words than another document. When performing matrix multiplication, the entities being multiplied (e.g., vectors and matrices) must be of proper size, collectively, or the matrix multiplication cannot be performed. (For example, if a row vector is being multiplied by a column vector, then the number of entries in the row must match the number of entries in the column. See the above-cited Internet article, where this is noted.) In Applicants' claimed invention, the number of elements in one of the vectors matches one dimension of the matrix, and the number of elements in the other vector matches the other dimension of the matrix. That is, one of the vectors has "P" elements and one of the dimensions of the matrix is "P", while the other vector has "E" elements and the other dimension of the matrix is "E". (By way of further illustration, the Examiner is referred to the example in Applicants' Fig. 6, where "P" = 10 and "E" = 4.)

Accordingly, Applicants respectfully submit that Pirolli's discussions of vectors of keywords, links, and times of day are irrelevant to their claimed invention.

Applicants therefore respectfully submit that their independent Claims 1, 9, and 10 are patentable over Pirolli, and that their dependent Claims 2 - 5 and 7 are therefore patentable over Pirolli by virtue of (at least) the patentability of the independent claims from which they depend. The Examiner is therefore respectfully requested to withdraw the §102 rejection.

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### III. Rejection under 35 U. S. C. §103(a)

Paragraph 2 on Page 10 of the Office Action states that Claims 6, 8, 11, and 13 - 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pirolli in view of U. S. Patent 5,905,666 to Hoffman et al. Claims 6 and 11 have been cancelled from the application without prejudice, rendering the rejection moot as to those claims. This rejection is respectfully traversed with regard to remaining Claims 8 and 13 - 14.

As discussed above, Applicants respectfully submit that their independent Claim 1 is patentable as currently presented. Dependent Claims 8 and 13 - 14, which depend from Claim 1, are deemed patentable over the cited references by virtue of the allowability of Claim 1.

Furthermore, with regard to Hoffman's discussions of matrix multiplication, these teachings cannot be combined with Pirolli's vectors of words, links, or times of day because such vectors do not contain numbers that can be used in multiplication, as has been discussed above.

The Examiner is therefore respectfully requested to withdraw the §103 rejection.

### IV. Conclusion

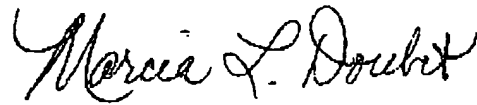
Applicants respectfully request reconsideration of the pending rejected claims, withdrawal of all presently outstanding objections and rejections, and allowance of all remaining claims at an early date.

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Respectfully submitted,

A handwritten signature in black ink, reading "Marcia L. Doubet". The signature is written in a cursive, flowing style.

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11/23/2005 09:46	4073437587	FAX	PAGE 01
Reply under 37 CFR 1.116 - Expedited Procedure - Technology Center 2100			
Atty. Docket No. RS9920010180751			
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE			
Assessment/Response Transmitted			
In re application of Madhe Chetupannath, et al.			
Serial No.:	10/047,031	Filed:	January 15, 2001
For:	Distributed Application Deployment Using Program Characteristics and Environment Characteristics		
Art Unit	2131	Examiner:	Glenford J. Madenka
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Sir:			
Transmitted herewith for filing please find an Amendment After Final Rejection in the above-identified Application (12 pages).			
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Date:	November 23, 2005	By:	
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